

## **Abstract**

A system and method for monitoring operating parameters of a machine (such as a vehicle) and producing diagnostic and/or prognostic results are disclosed. Active, semi-active, or semi-passive sensors are wirelessly linked with an interrogator that selectively interrogates the sensors, such as through transponders in wired communication with the sensors. A data concentrator or processor analyzes data from certain sensors and generates diagnostic/prognostic conclusions, in some cases using additional data selectively requested from and acquired by the sensors. In some embodiments, raw or abstracted data is communicated with a management center that provides troubleshooting information (again, possibly using additional, selectively acquired data), makes resource management decisions (such as preparing parts or labor resources to make a repair), and tracks problems in all or a subset of the machines being managed.